Mayur Prakash Gotmare

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EDUCATION

North Carolina State University, Raleigh, NC, US — Expected May 2025
Master of Computer Science (Track in Data Science) — **GPA: 4/4**
Coursework: Computer Networks, Data Analysis, Database Management, Algorithms, Cloud Computing

Vishwakarma Institute of Information Technology, Pune, MH, India — May 2021
Bachelor of Technology in Computer Engineering — **GPA: 4/4**

TECHNICAL SKILLS

- **Languages**: Python, C++, Java, HTML, CSS, R, SQL, Scala
- **Database and Operating Systems**: MySQL, MongoDB, Elasticsearch, InfluxDB, Windows, Ubuntu, NoSQL, Linux
- **Technologies/Frameworks:** Machine Learning, Data Science, Deep Learning, Data Analytics, Computer Vision, Probability, Statistics, Physics-Informed Machine Learning (PINNs, Neural Operator Methods), PyTorch, TensorFlow, Keras, Apache Airflow, Docker, GCP, AWS, MATLAB, Git, Data Visualization, Postman, OpenCV, REST API, Agile, CNN, RNN, Graph Neural Networks, Transformer Architectures, Reinforcement Learning, Transfer Learning

EXPERIENCE

Software Engineer Intern, NetApp | RTP, NC — May 2024 - Present

- Automated security controls across 50+ AWS, Azure, and GCP accounts, leveraging GenAI/GPT models to strengthen security posture by 30%
- Designed a framework for managing engineering service accounts in Active Directory using LDAP, Django, ServiceNow, and RESTful APIs, increasing efficiency by 50%.
- Built a real-time data denial pipeline using Google Cloud services (Feeds, Pub/Sub, Cloud Functions), improving firewall compliance by 30% through proactive monitoring and updating of open ingress rules.

Research Assistant, NCSU| Raleigh, NC

- Developed a CNN-LSTM model for predicting Degree of Linear Polarization (DoLP) from sky images, achieving 95% accuracy.
- Leveraged CNN for feature extraction, LSTM for modeling temporal dependencies, and OpenCV for extracting canopy data.

Software Engineer, Veritas Technologies LLC | Pune, India — Jul 2021 - Jul 2023

- Developed Predictive Insights, a Python-based AI/ML backend engine with Pytorch & Tensorflow for appliance health forecasting (94% accuracy) and a recommendation engine using regression models.
- Designed an inventory processing system leveraging Elasticsearch for real-time search and indexing.
- Engineered automated test case generation with AI and Stanford NLP, transforming requirements into 100+ scalable Java test cases, improving test coverage by 40%.
- Managed diverse database systems, including MongoDB, SQL, InfluxDB, and Elasticsearch, while overseeing CI/CD pipelines to ensure efficient data integration and deployment processes.

Software Developer Intern, Veritas Technologies LLC | Pune, India — Jan 2021 - Jun 2021

- Developed frontend & backend framework using **Vue.js & Python-Django** for running desired test suites on Virtual Machines.
- Monitored VM health with the help of ansible and Jenkins pipeline for running test suites.

Software Engineer Intern, IDeaS – A SAS company | Pune, India — Jul 2020 - Dec 2020

- Spearheaded Covid-19 Request Relief Automation using **Microsoft Power Automa**te and Power apps.
- Developed **automation with Python-Selenium** for Client Property Association in SFDC and **reduced 90% manual efforts** .
- Automated intervention analysis using **PowerBI**, generating reports that improved data-driven decision-making by 20%.

Research and Development Computer Vision Intern, Trendzlink Technology Pvt. Ltd. | Pune, India — May 2019 - Jul 2019

- Completed "Image Processing with Embedded Environment" project involving **CUDA & TensorFlow** with >95% accuracy.
- Contributed to various computer vision projects like defect detection for mechanical parts using OpenCV.

Co-founder, Machine Learning Forum, VIIT | Pune, India

- Undertook projects and organized workshops and weekly sessions for 200+ students on Python and Machine learning.
- Collaborated with **NVDIA deep learning institute** for teaching deep learning concepts to students.

PROJECTS

- **Machine Learning for Power Prediction**: Pre-processed data and analyzed various Machine Learning regression models. Developed and forecasted future electricity consumption based on the **ARIMA** model with **a 91% accuracy rate**.
- **Data Analysis and time series prediction:** Utilized **data modeling** & pre-processing techniques and **PCA** for dimensionality reduction on government data containing types of crimes in L.A. Trained the dataset with various machine learning models and implemented **LSTM**, achieving **85% accuracy** in predicting future time series trends in crime patterns using **PyCharm** IDE
- **Criminal Database using Facial Recognition**: Created a criminal database and managed the facial recognition component for data retrieval from MongoDB and MySQL databases. Implemented Facial Recognition software using the **Viola-Jones algorithm** in conjunction with neural networks and TensorFlow, achieving an accuracy rate of nearly 89%.
- **Database Management Systems:** Designed and built the Wolf Parking Management System, for managing parking lots and its users on college campus with **JDBC & MariaDB**.

PAPER PUBLICATIONS

- Paper Title: **Survey of Big Data and their Analytical Frameworks,** International Research Journal of Modernization in Engineering Technology & Science (IRJMETS), Volume 4 Issue 8. For details click here.